WINTER WEATHER AWARENESS WEEK

National Weather Service

Winter 2002-2003

Winter Weather Awareness Week in Michigan is November 3-9, 2002

Winter Weather Awareness Week in Ohio is November 17-23, 2002

Winter Weather Awareness Week in Indiana is November 18-22, 2002

The National Weather Service (NWS) will conduct a winter weather awareness campaign during the month of November. The goal of Winter Weather Awareness Week is to educate everyone to the hazards winter poses, and to help everyone be prepared should severe winter weather occur.

The Warning Coordination Meteorologist (WCM) serving your area will be available for interviews and questions.

Winter Outlook...El Niño in Play

El Niño is poised to influence winter weather across the Great Lakes and Ohio Valley region, though the El Niño influence will be weaker than the very strong 1997-98 version.

According to the Climate Prediction Center, the section of the National Weather Service that produces the winter outlook, precipitation is expected to be below normal over southern Lower Michigan, northern Indiana, and northwest Ohio, while temperatures are expected to be above normal, typical for a winter influenced by El Niño. A study between the NWS Northern Indiana office (WFO IWX) and Purdue University indicated that for the December through February period, temperatures average nearly 2.5°F above normal during an El Niño winter. Precipitation for the period of January through March, averages about 70 percent of normal.

A word of caution: during winters with an El Niño influence, the Midwest is often a transition zone between significantly different air masses. Thus, El Niño winters in this area are often characterized by a greater variability in weather.

For more information on the winter outlook and El Niño, visit the Climate Prediction Center web site at: http://www.cpc.noaa.gov.

A full color version of this publication is available on-line at:
http://www.crh.noaa.gov/iwx/publications/winter

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NWS Contacts

NWS Northern Indiana
WCM
Steve Eddy
574-834-1104 x726
Steven.Eddy@noaa.gov

NWS Indianapolis
WCM
David R. Tucek
317-856-0664 x726
David.Tucek@noaa.gov

Improved Wind Chill Temperature Index...Revisited

Last year, the NWS launched a new Wind Chill Temperature Index which more accurately calculates a reading of how cold air feels on the human skin. "Our main goal was to use modern science in revising the index so that it's more accurate and makes the human impact more prominent ," said retired General Jack Kelly, director of NOAA's National Weather Service (NWS).

The wind chill index is based on:

- Wind speed calculated at the average height of the human face.
- An updated heat transfer theory, which factors in heat loss from the body to its surroundings, during cold, windy days.
- A consistent standard for skin tissue resistance.
- Clear night sky conditions.
- A lowered calm wind threshold of three miles per hour.

For more information, including a calculator which can be used to compare the new Wind Chill Temperature Index with the old, visit the following Web Page at http://www.nws.noaa.gov/om/windchill.

At a Wind Chill Temperature of minus 50°F, frostbite will occur within 10 minutes. At minus 30°F, frostbite will occur within 30 minutes.

Warnings and advisories issued for the NWS Northern Indiana County Warning and Forecast Area (CWFA) will be based on the following criteria:

- **Wind Chill Warning** - Wind Chill temperatures are expected to be –30°F or colder.
- **Wind Chill Advisory** - Wind Chill temperatures are expected to be in the –20 to –29°F range.

Additional information on the dangers of cold weather and a Wind Chill Index Chart, can be found on page 4 of this publication.

Winter Storms...Deceptive Killers

Winter storms are considered deceptive killers because most deaths are *indirectly* related to the storm. Fatalities occur:

- In traffic accidents on icy roads
- From heart attacks while shoveling snow
- From hypothermia due to prolonged exposure to cold

Winter Deaths

Related to ice and snow:

- About 70% occur in automobiles
- About 25% are people caught out in the storm
- Majority are males over 40 years old

Related to exposure to cold:

- 50% are people over 60 years old
- Over 75% are males
- About 20% occur inside the home

Winter weather claims nearly 100 lives annually.

Winter Weather Terms…What To Listen For

Hazardous Weather Outlook - A Hazardous Weather Outlook will be issued to alert the public of the potential for hazardous winter weather. This outlook will be issued daily and will provide weather information through the next 7 days.

Winter Storm Watch - A Winter Storm Watch is issued to inform the public of the possibility of one or a combination of the following events: blizzard conditions, heavy snow, significant and damaging accumulations of freezing rain, or heavy sleet. A watch usually gives 12 to 36 hours advance notice of the onset of winter weather conditions.

Winter Storm Warning - A Winter Storm Warning is issued when heavy snow, or a mixture of heavy snow, freezing rain, and/or sleet is expected.

Blizzard Warning - A Blizzard Warning is issued when heavy snow and/or blowing snow (visibility less than 1/4 of a mile) and sustained winds or frequent wind gusts of 35 mph or more are expected for a period of three hours or more.

Heavy Snow Warning - A Heavy Snow Warning is issued when 6 inches or more of snow in 12 hours and/or 8 inches or more of snow in 24 hours is expected.

Lake Effect Snow Warning - A Lake Effect Snow Warning is issued when 6 inches or more of lake effect snow in 12 hours and/or 8 inches or more of snow in 24 hours is expected.

Ice Storm Warning - An Ice Storm Warning is issued when significant and damaging ice accumulations (usually one quarter inch or more) are expected.

Freezing Rain Warning - A Freezing Rain Warning is issued when a significant ice accumulation is expected on all surfaces

Wind Chill Warning - A Wind Chill Warning is issued when wind chill values are expected to be –30ºF or colder.

High Wind Warning - A High Wind Warning is issued when sustained winds (one hour or longer) of 40 mph or higher and/or wind gusts (any duration) of 58 mph or higher are expected.

Advisories are issued for winter weather events that are hazardous, but not severe enough to warrant a warning. Some advisory types are: Winter Weather, Snow, Lake Effect Snow, Snow and/or Blowing Snow, Freezing Rain, Freezing Drizzle, Wind Chill, Frost, Freeze, Wind, and Dense Fog.

Frostbite

Frostbite is damage to body tissue caused by that tissue being frozen. Frostbite causes a loss of feeling and a white or pale appearance in extremities, such as fingers, toes, ear lobes, or the tip of the nose. If symptoms are detected, get medical help immediately! If you must wait for help, slowly re-warm the affected areas. However, if the person is also showing signs of hypothermia, warm the body core before the extremities.

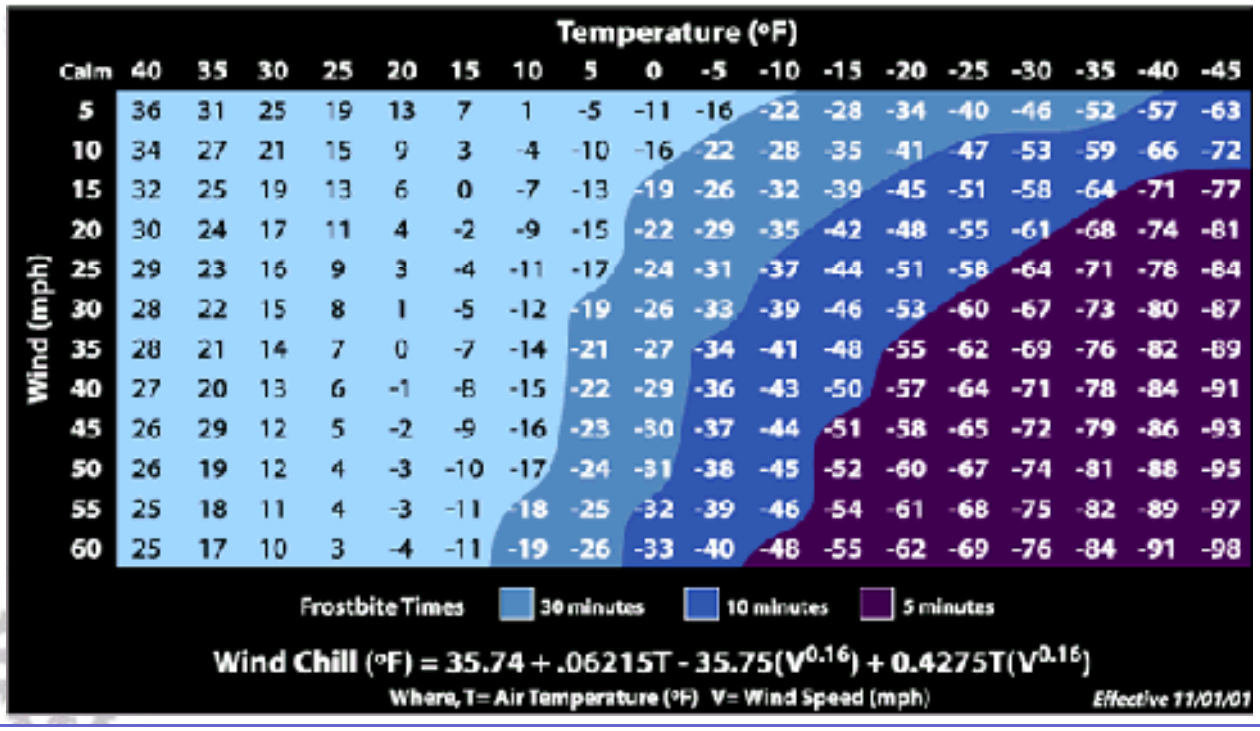
Hypothermia: Low Body Temperature

Warnings Signs - Uncontrollable shivering, memory loss, disorientation, incoherence, slurred speech, drowsiness, and apparent exhaustion.

Detection - Take the person's temperature. If below 95°F (35°C), seek medical care immediately!

If medical care is not available, begin warming the person slowly. Do not warm extremities (arms and legs) first! This drives the cold blood toward the heart and can lead to heart failure. Instead, warm the body core first. If needed, use your own body heat to help. Get the person into dry clothing and wrap them in a warm blanket, covering the head and neck. Do not give the person alcohol, drugs, coffee, or any hot beverage or food; warm broth is better.

Wind Chill Chart



When Caught in a Winter Storm...

Outside

Find shelter:

- Try to stay dry.
- Cover all exposed parts of the body.

If no shelter:

- Prepare a lean-to, wind-break, or snow cave for protection from the wind.
- Build a fire for heat and to attract attention.
- Place rocks around the fire to absorb and reflect heat.

In a Car or Truck

Stay in your vehicle. Disorientation occurs quickly in wind-driven snow and cold.

Run the motor about ten minutes each hour for heat:

- To avoid carbon monoxide poisoning, open the window a little for fresh air.
- Quickly make sure the exhaust pipe is not blocked.

Make yourself visible to rescuers:

- Turn on your dome light at night when running the engine.
- Tie a colored cloth (preferably red) to your antenna or door.
- Raise the hood to indicate trouble after the snow stops falling.

Exercise from time to time by vigorously moving arms, legs, fingers, and toes to keep blood circulating and to keep warm.

At Home or in a Building

Stay inside. When using alternative heat from a fireplace, wood stove, space heater, etc., use fire safeguards and ventilate properly.

If you have no heat:

- Close off unneeded rooms.
- Stuff towels or rags in cracks under doors.
- Cover windows at night.

Eat and drink. Food provides the body with energy for producing its own heat. Keep the body replenished with fluids to prevent dehydration.

Wear layers of loose-fitting, light-weight, warm clothing. Remove layers to avoid overheating, perspiration, and subsequent chill.

Fort Wayne's two heaviest 24-hour snowfalls occurred in March: 13.6 inches fell March 9-10, 1964, and 12.5 inches fell March 16-17, 1973.

The Blizzard of '78 gave South Bend it's greatest single-storm snowfall and deepest snow cover, and contributed greatly to the city's snowiest January and snowiest winter.

September 25, 1942 was the date of the earliest autumn snowfall at both South Bend and Fort Wayne. Fort Wayne only received flurries, but South Bend measured 1.2 inches.

An extremely unusual early season snowstorm dropped 8 to 11 inches of snow on northern and central Indiana October 19, 1989.

Be Prepared...Before the Storm Strikes

At home and at work...

Have available:

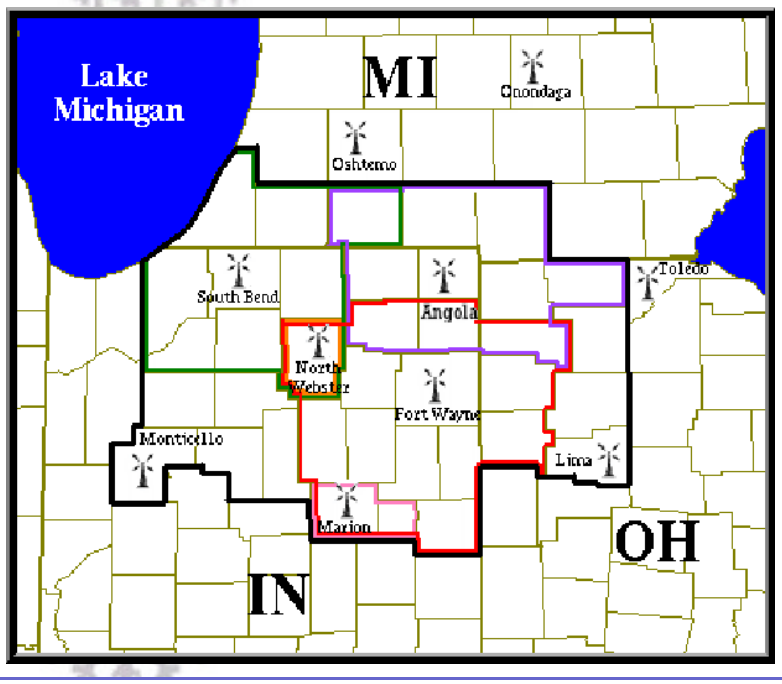
- Flashlight and extra batteries
- Battery-powered NOAA Weather Radio and portable radio
- Extra food and water
- Extra medicine and baby items
- First-aid supplies
- Heating fuel
- Emergency heating source
- Fire extinguisher and smoke detector

In vehicles...

- Fully check and winterize your vehicle
- Carry a winter storm survival kit: blankets/ sleeping bags; flashlight; first-aid kit; knife; non-perishable food; extra clothing; a large empty can and plastic cover with tissues and paper towels for sanitary purposes; a smaller can and water-proof matches to melt snow for drinking water; sand; shovel; windshield scraper; tool kit; tow rope; booster cables; water container; and road maps
- Keep your gas tank near full
- Try not to travel alone
- Let someone know your itinerary

NOAA Weather Radio

Keep ahead of the storm by listening to NOAA Weather Radio for the latest winter storm watches, warnings, and advisories. In addition to routine broadcasts, the Specific Area Message Encoding (SAME) feature of NOAA Weather Radio activates the Emergency Alert System (EAS). EAS is used to provide notification of emergencies to the public. Blizzard warnings will always be distributed through the EAS, while other winter storm warnings may be if deemed life threatening or particularly urgent.



NWR Frequencies

Angola	162.425 MHz
Fort Wayne	162.550 MHz
Lima	162.400 MHz
Marion	162.450 MHz
Monticello	162.475 MHz
North Webster	162.500 MHz
Onondaga	162.400 MHz
Oshtemo	162.475 MHz
South Bend	162.400 MHz
Toledo	162.550 MHz

Did You Know?

Special needs NOAA Weather Radios designed to meet the needs of the deaf and hard-of-hearing are available.

For more information, visit the NOAA Weather Radio Web Site at http://www.nws.noaa.gov/nwr.

For Special Needs NOAA Weather Radio information, visit http://www.nssl.noaa.gov/~wood/NWR/spc-nds-nwr.

Notable Past Winter Weather

January 31, 2002 - A major ice storm strikes the region, snapping trees and power lines. Damage is most severe in Michiana, where ice accumulations of one and a half inches occur. Over 250,000 homes were without power during the storm.

February 28, 1900 - One of the greatest snowfalls ever seen in the Midwest brought 18 inches of snow to Fort Wayne, and similar totals elsewhere in Indiana and Illinois.

January 20, 1985 - Fort Wayne's most frigid day on record, with a low of –22°F and a high of –11°F .

December 6, 1962-March 12, 1963 - There was measurable snow cover on the ground at South Bend for 97 straight days, a record.

November 25-26, 1977 - South Bend was buried under an unusually heavy November snowfall of 20.5 inches, just after Thanksgiving.

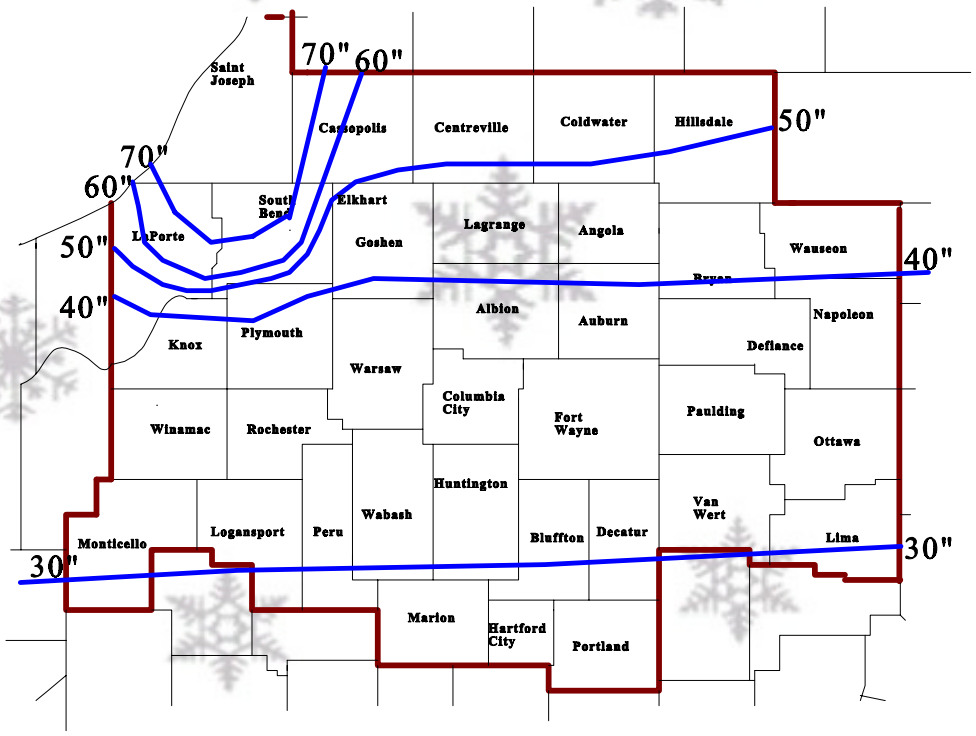
January 25-27, 1978 - Perhaps the greatest blizzard ever to strike the region deposits 24 inches of snow at South Bend and 10 inches at Fort Wayne. Thunder and lightning were observed with the snow. Wind gusts up to 70 miles per hour produced snow drifts as high as 30 feet.

December 22-26, 1983 - In South Bend, the mercury fell below zero on the evening of the 22nd, and didn't rise above zero until the 26th. Nighttime lows were below –10°F each day, and half a foot of snow fell.

January 2-4 , 1999 - Nearly 19 inches of snow fell at South Bend, with 15.4 of those inches piling up on the 2nd. Winds gusted to 43 mph, producing giant drifts and rough conditions on Lake Michigan.

Average Seasonal Snowfall for Northern Indiana CWFA

South Bend, primarily because of lake effect snow, averages 69.8 inches of snowfall every season. The snowiest season was 1977-78, with 172.0 inches. The least snowy season was 1948-49 when only 23.2 inches fell. Fort Wayne, which receives much less lake effect snow than South Bend, averages 36.2 inches of snow every season. Fort Wayne's snowiest season was 1981-82, with 81.2 inches. The least snowy season was 1932-33 with a mere 8.3 inches.



National Weather Service
Northern Indiana

7506 E 850 N
Syracuse, IN 46567

Phone: 574-834-1104 x726

On the Web
http://www.crh.noaa.gov/iwx

Internet Sites

National Oceanic and Atmospheric Administration (NOAA)
http://www.noaa.gov

National Weather Service
http://www.nws.noaa.gov

National Weather Service Northern Indiana
http://www.crh.noaa.gov/iwx

National Weather Service Indianapolis
http://www.crh.noaa.gov/ind

NWS Office of Meteorology Winter Weather Page
http://www.nws.noaa.gov/om/winter

Federal Emergency Management Agency
http://www.fema.gov/fima/

American Red Cross
http://www.redcross.org/services/disaster/keepsafe

NOAA Weather Radio
http://www.nws.noaa.gov/nwr

Climate Prediction Center
http://www.cpc.noaa.gov

Indiana State Emergency Management Agency
http://www.state.in.us/sema